

REMARKS

Under this Amendment, applicant has amended Claims 1, 2, 4, 7, 8 and 9 to more clearly define the invention, has cancelled Claims 3, 5, 6, 10 and 11 without prejudice to the subject matter therein, and has added new Claim 12 to more adequately cover the present invention, and for these reasons reconsideration of this application is respectfully requested.

Inasmuch as the Examiner has rejected all the Claims principally over a patent which discloses the filling tube completely separate from the bag, it is appropriate at this point to briefly review the objects of the present invention and applicant's solution.

In accordance with the present invention, a side gusseted poly bag with a filling valve and its method of manufacture are provided including a tubular body with opposed side gussets defining front and rear panels, and a filling valve formed by folding the front and rear panels with the interconnecting gusset portion at one corner of the bag inwardly into the bag forming a filling panel, and thereafter simultaneously heat sealing the top edges of the front and rear panels with the top edges of the filling panel forming a filling tube and valve that closes itself under the force of material as it rises in the bag.

Considerable material savings are achieved by utilizing portions of the front and rear panels and interconnecting gusset portion to form portions of the filling tube. The remaining portions of the filling tube are formed by an "L" shaped integral extension of the front and rear panels and their interconnecting gusset. Alternatively, the extension portions could be a separate piece of material heat sealed to the upper edges of the panels and gusset at the corner. The integral extension embodiment has some material waste because it extends only about 30% of the width of the gusseted web in manufacture. But it saves labor because there is no heat sealing of the separate piece to the preform, which is an additional step. On the other hand, the separate piece method, while requiring an additional step, has no material waste. Either embodiment may be best for a particular application, but the integral extension embodiment is preferred and the one depicted in the present drawings.

Because the filling tube is connected completely around the filling opening, which is diagonally oriented, the rise of material in the bag very effectively closes the filling tube over the opening thereby sealing the bag with no further effort.

Claims 1, 2, 4, 7, 8 and 9 have been rejected under 35 USC 102(b) as anticipated by or, in the alternative, under 35 USC 103(a) as obvious over the LaFleur, U.S. Patent No. 4,071,187 with the statement:

"LaFleur shows a side gusseted bag with a filling valve comprising: a tubular body constructed of thermoplastic material having opposed side gussets 26,30, the forward and rear panels being heat sealed together, a filling panel attached at the opening to form a filling valve as shown in figure 8. The filling valve is positioned to rise toward and close the opening to form a filling valve as shown in figure 8. The filling valve is positioned to rise toward and close the opening and is an integral extension of the forward and rear panels at said corner folded inwardly as shown in figure 8. The filling tube is shown in figure 1. Regarding the width and height limitations, it appears that LaFleur shows the integral extension having a width and height of about 30% of the width of the bag. LaFleur disclose the method of forming a tubular body as shown in the figures as well as heat sealing the panels together 22, 24 together to form a top seam 40. The front and rear panels are not connected defining a filling opening as shown in figure 6."

This rejection is respectfully traversed particularly with respect to the Claims as now amended.

The LaFleur patent shows two embodiments; the first being in Figs. 1 to 10, and the second being in Figs. 11 to 22. However, the differences in these embodiments do not appear germane to the rejection so that references will be made to embodiment 1 in this discussion.

Viewing Fig. 6 in La Fleur, the filling tube 52 is formed by two pieces; the first being the inward folding of gusset panel 68 that includes small triangular portions of the front rear walls 66. Note here, however, and this is an important point, that no portions of the panel 68 extend inside the bag, and simply end at the gusset center line 32 indicated in Fig. 6. For this reason, LaFleur must add a separate piece 52 to form the major portion of the filling tube 52 illustrated in Fig. 1. This extra piece is very difficult to align with the bag and very difficult to align with the top edges 36 and 38 for heat sealing and would result in a lot of rejected bags for this reason, in addition to being more costly to manufacture.

Note that LaFleur heat seal 40 is at the very top edges 36 and 38 of the poly bag whereas according to applicant's invention, which eliminates the need for the extra piece, the heat seal lines, for example at 40 in Fig. 10, is seen in Fig. 6 to be substantially below the top edges of the bag prior to folding the extension illustrated at 1, 2, 3 and 8 in Fig. 6, inwardly into the bag to form the filling tube.

The present bag has the capability for providing greater internal valve width size than the exterior opening of the valve, which LaFleur is restrained from, by the fact that his bag doesn't have the extra scrap film above the valve area like the present one does.

This is a very important feature because the valve opening must conform to the exact size of the filling nozzle at the exterior valve opening of the bag, on any type of packer, otherwise the product will escape from around the filling spout during the filling process. However, if the internal valve sleeve is the same size as the exterior valve opening, it will stick onto the filling spout due to the product being lodged around it. This may cause damage to the internal valve and bag integrity when it is pulled off the spout. It may also slow down the filling cycle because the operator has to struggle to remove the bag from the spout. However, due to the fact that the present valve can be larger internally, the internal sleeve will pull away from the filling spout very readily.

Claim 1 has been amended to include: "said filling tube being formed integrally with the bag by portions of the side gusset at said corner and substantial portions of the front and rear panels without any separate pieces, said integral filling tube extending a substantial distance into the bag, said filling tube portions of the front and rear

panels being heat sealed along the upper portions of the front and rear panels and heat sealed therewith to close the bag and form the filling valve."

Firstly, the LaFleur filling tube is not integral with the bag, it is not formed without any separate pieces, the integral portion of LaFleur's filling tube does not extend a substantial distance into the bag, and the edges of the integral panels 66 of LaFleur which are portions of the front and rear panels 22, 24, and 22 respectively, are not heat sealed along lines 36 and 38 with the front and rear panels in LaFleur as indicated in Fig. 6 of LaFleur.

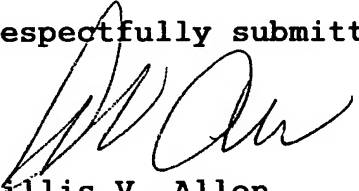
Claim 9 is directed to the method of making the poly bag and has been amended to recite: "forming a filling tube attached to the front and rear panels extending a substantial distance into the bag interior -- solely by folding the gusset at the top of one side inwardly with substantial portions of the forward and rear panels so the edges of the forward and rear panels are co-linear with the proposed heat seal line at the top of the bag, and heat sealing the forward and rear panels together with the edges of the forward and rear panel portions along the proposed heat seal line ---." LaFleur doesn't respond to any of these limitations and particularly the last one where the heat sealing line

closing the top of the bag also heat seals the co-linear edges of the forward and rear wall portions that form part of the filling tube.

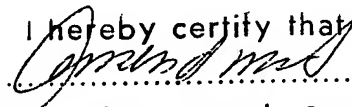
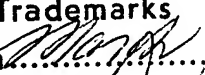
For these reasons, Claims 1, 2, 4, 7 to 9, and 12 are believed clearly patentable over LaFleur, and reconsideration and allowance are respectfully requested.

As applicant has made a good faith effort to place this application in condition for allowance, reconsideration and issuance are respectfully requested.

Respectfully submitted,


Dillis V. Allen
Attorney for Applicant
Reg. No. 22,460

Dillis V. Allen, Esq.
105 S. Roselle Road
Suite 101
Schaumburg, IL 60193
847/895-9100

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